

REMARKS

In accordance with the foregoing claim 1 has been amended, and claim 7 has been added. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-7 are pending and under consideration. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §103

In the Office Action, at page 2, numbered paragraph 1, claims 1-5 were rejected under 35 U.S.C. §103(a) in view of Japanese Publication No. 08-050914 by Iwazawa (Iwazawa) and Japanese Publication No. 06-196176 by Niikura (Niikura). The rejection is traversed and reconsideration is requested.

In the Office Action, at page 4, numbered paragraph 2, claim 6 was rejected under 35 U.S.C. §103(a) in view of Iwazawa and Niikura and further in view of Japanese Publication No. 06-196172 by Okuyama (Okuyama). The rejection is traversed and reconsideration is requested.

In the Office Action, at page 4, numbered paragraph 3, claim 5 was rejected under 35 U.S.C. §103(a) in view of Iwazawa and Niikura and further in view of U.S. Patent No. 5,114,803 to Ishihara (Ishihara). The rejection is traversed and reconsideration is requested.

THE IWAZAWA AND NIIKURA PRIOR ART REFERENCES

Iwazawa is directed to a cylindrical layer-built fuel cell. In the cylindrical fuel cell of Iwazawa, air and fuel are separated from each other. See FIG. 4.

Niikura is directed to a molten carbon-salt type fuel cell in which fuel and air are completely divided. See FIG. 1. In FIG. 5 of Niikura, only the outer surface of a single cylindrical cell is exposed to a flame.

Claims 1-6 PATENTABLY DISTINGUISH OVER THE PRIOR ART

Claim 1 recites inter alia:

at least two fuel cells, each comprising a solid-electrolyte layer having first and second surfaces, an anode layer formed on the first surface of the solid-electrolyte layer, and a cathode layer formed on the other surface of the solid-electrolyte layer,

said at least two fuel cells being mutually arranged in such a manner that said anode layer of one of said fuel cells faces said anode layer of another, adjacent fuel cell, with a predetermined space between them and said space extends from a lower position to an upper position;

a fuel supply unit for supplying fuel into said space at the lower position thereof so that a flame is formed in said space in a direction in which said space extends,

said space defined between the adjacent anode layers being an open space at the upper position where the flame extends and being an open space at the lower position where the fuel supply unit is arranged, and

the anode layer being directly exposed to the flame and the cathode layer being isolated from the flame, but exposed to air.

Support for the amendment to claim 1 can be found, for example, on page 4, lines 5-9, and page 9, lines 29-30.

On page 2, the Office Action correlates the "... said anode layer of one of said fuel cells faces said anode layer of another, adjacent fuel cell, with a predetermined space between them," feature of claim 1 with FIG. 4 and paras. [0031]-[0035] of Iwazawa. Claim 1 has been amended to recite "said space defined between the adjacent anode layers being an open space at the upper position where the flame extends." Applicants respectfully submit that FIG. 4 and para. [0034] of Iwazawa describe that the fuel gas passage is kept separate from the oxidation gas passageway where air circulates. Thus, it is not possible for a space defined between adjacent anode (fuel) layers to be where a flame extends because this would require air to circulate in that space as well. As described in para. [0034] of Iwazawa, the fuel passages and the air passages are kept separate. Therefore, Applicants respectfully submit that Iwazawa does not teach or suggest the features of claim 1.

Applicants respectfully submit that Niikura fails to cure the deficiency of Iwazawa. On page 3, the Office Action correlates the "flame is formed in said space in a direction in which said space extends" feature of claim 1 with the limitations stated in Niikura in para. [0019] and the Abstract. Applicants have amended claim 1 to clarify that the "anode layer being directly

exposed to the flame.” As recited earlier in the claim, the “anode layer of one of said fuel cells faces said anode layer of another, adjacent fuel cell, with a predetermined space between them.”

Applicants respectfully submit that FIG. 5, referred to in para. [0019] of Niikura describes that a single cylindrical cell is exposed to a flame, but does not teach or suggest “at least two fuel cells ...said anode layer of one of said fuel cells faces said anode layer of another, adjacent fuel cell,” as recited in claim 1. Therefore, Applicants respectfully submit that Niikura fails to cure the deficiency of Iwazawa and does not teach or suggest the features of claim 1.

Claims 2-6 depend directly from claim 1 and include all of the features of that claim plus additional features which are not taught or suggested by the prior art. Therefore, it is submitted that claims 2-6 patentably distinguish over the prior art.

NEW CLAIM 7

New claim 7 recites a fuel cell device which includes:

at least two fuel cells arranged such that an anode layer of one of said fuel cells faces an anode layer of another, adjacent fuel cell, with a space between them; and

a fuel supply unit supplying fuel into said space at a lower position thereof, so that a flame is formed in said space in a direction in which said space extends,

wherein the anode layers are directly exposed to the flame and the cathode layers are isolated from the flame, but exposed to air.

Therefore, Applicants respectfully submit that claim 7 patentably distinguishes over the prior art.

SUMMARY

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

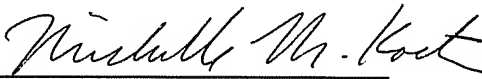
If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: 
Michelle M. Koeth
Registration No. 60,707

1201 New York Avenue, N.W.
Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501